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ABSTRACT

This paper outlines a psychological model of acculturation intended to account for the occurrence of intergenerational/acculturational differences and its concomitant family disruption. Two acculturation scales were developed measuring self-reported behaviors and value dimensions. Four samples were used in the development and validation of the scales: (1) 265 Cuban Americans, (2) 201 white Americans, (3) 69 Cuban American high school students, and (4) 47 white American high school students. The behavioral scale provided a highly reliable and valid measure of acculturation and proved superior to the value scale in almost every respect. Behavioral and value acculturation were found to be linear functions of the amount of time a person was exposed to the host culture. The rate at which the behavioral acculturation process took place was found to be a function of the age and sex of the individual. The findings suggest that intergenerational/acculturational differences develop because younger members of the family acculturate more rapidly than older family members. The clinical implications of these findings are discussed. (Author/MK)

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Acculturation: Theory, Measurement, and Clinical Implications

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Abstract

This paper outlines a psychosocial model of acculturation intended to account for the occurrence of intergenerational/acculturational differences and its concomitant family disruption. Two acculturation scales were developed measuring self-reported behaviors and value dimensions. The behavioral scale provided a highly reliable and valid measure of acculturation and proved superior to the value scale in almost every respect. Behavioral and value acculturation were found to be linear functions of the amount of time a person was exposed to the host culture, and the rate at which the behavioral acculturation process took place was found to be a function of the age and sex of the individual. The findings suggest that intergenerational/acculturational differences develop because younger members of the family acculturate more rapidly than older family members. The clinical implications of these findings are discussed.

ACCULTURATION: THEORY, MEASUREMENT, AND CLINICAL IMPLICATIONS

During the last decade, over three million immigrants entered the United States (U.S. Census, 1970). Many studies have documented the high rates of behavioral disorders among immigrants and there has been increased interest in identifying factors related to psychosocial disruption among these groups (Berry & Annis, 1974; Ihsam Al-Issa, 1970; Mezey, 1960). According to Tyhurst (1951) these disorders result from the stresses of migration and adaptation to a new culture. Berry and Annis (1974) indicate that factors inducing stress include cultural change, the breakdown of family ties, abrupt changes in the environment, language barriers, and discrimination. Other writers have also suggested that the acculturation process results in the disruption of the family which in turn leads to behavioral disorders in family members (Kelly, 1973).

This article describes a psychosocial model of acculturation developed as part of a larger program focusing on the treatment of behavioral disorders within the Latino immigrant community in the Miami area. The article also reports on the development and validation of two acculturation scales constructed within the framework of the model. The research studies reported in the article provide empirical support for both the model and the acculturation scales. Although the evidence reported here is based on research on one particular community, the model and the scales appear generalizable enough to be useful for field work with a wide variety of similar immigrant communities.

Acculturation is a complex process that can be defined at two levels. First, at the societal level, acculturation can be defined as the process of accommodation of an immigrant culture to a host culture. Contact between the two cultures

inevitably results in a mutual exchange of cultural elements and a modification of both cultures. In those situations where one culture represents a distinct minority (e.g., a migrant and a host culture), the process of cultural exchange is assymetrical and the direction of acculturation is toward the host culture. Thus, at a societal level, acculturation involves the assymetrical attenuation of differences between a migrant and a host culture.

Acculturation can also be defined at the level of the individual. The process of individual acculturation involves an accommodation on the part of the members of the migrant culture to the host culture. At this level, acculturation involves the modification of the individual's customs, habits, language usage, life style, and value orientations.

Previous research suggests that certain aspects of the acculturation process are related to family disruption and behavioral disorders (Berry & Annis, 1974; Gonzalez-Reigosa & Del Castillo 1975; Kelly, 1973; Scopetta & Alegre, 1975). The acculturation model described here builds on this research and attempts to define the relationship between behavioral disorders, family disruption, and the acculturation process. In addition, it also provides a theoretical framework which accounts for two major clinical findings of the treatment program. First, clinical experience in connection with the treatment program suggested that the high rate of behavioral disorders within the Cuban immigrant community was associated with high levels of family disruption. Second, clinical observations with the Cuban community further indicated that family disruption occurs as a result of intergenerational differences in acculturation (Gonzalez-Reigosa & Del Castillo, 1975; Scopetta & Alegre, 1975). When youngsters acculturate more rapidly than their parents, the usual intergenerational gap (Spiegel, 1975) becomes compounded with intergenerational/acculturational differences (Scopetta & Alegre, 1975). According to King, Scopetta, and Szapocznik (1975), this results in an

exacerbated intergenerational/acculturational gap which constitutes the essence of family disruption. The acculturation model reported here is thus based on two assumptions concerning the relationship between behavioral disorders, family disruption, and the acculturation process. The first assumption is that the high rate of behavioral disorders among immigrant communities is a consequence of the high level of family disruption within these groups; and, the second assumption is that the high rate of family disruption within the immigrant community is a consequence of intergenerational differences in the rates of acculturation within these families.

Based on those assumptions, a theoretical model of the process of acculturation was developed to explain the occurrence of intergenerational/acculturational differences. The basic core of the model consists of two hypotheses concerning the process of acculturation. The first hypothesis is that individual acculturation is a linear process that progresses as a function of the length of time the person has been exposed to the host culture. Thus, the more time an individual has been exposed to the host culture the more complete the person's acculturation will be. The second hypothesis is that the rate of acculturation is a function of the individual's age. Specifically, the younger a person is at the time of his initial exposure to the host culture the more rapidly acculturation will proceed.

In addition, two other hypotheses are suggested based on previous research findings. The third hypothesis is that the rate of acculturation differs for males and females, with males acculturating more rapidly than females (Papajohn & Spiegel, 1971; Santisteban, 1975). The fourth hypothesis, a methodological one, is that there are at least two distinct dimensions of acculturation--a dimension of behavioral acculturation (Campisi, 1947; Carballo, 1970), and a dimension of value acculturation (Kluckhohn and Strodtbeck, 1961). The dimension

of behavioral acculturation involves the gradual adoption by the individual of the more overt and observable aspects of the host culture, including the host culture's language, customs, habits, and life style. The value dimension is less overt and involves the gradual adoption by the individual of the host culture's basic value orientation.

In order to operationalize and apply this theoretical model of acculturation, measures of behavioral and value acculturation were developed. The remaining sections of the paper report on the development of the acculturation scales, and on the validation of both the model and the scales.

Subjects

Four samples drawn from the Miami area were used in the development and validation of the acculturation model and scales. Sample 1 consisted of Cuban Americans selected to include a wide range of age and social economic levels, as well as both sexes. Sample 1 contained a total of 265 individuals, including 105 males and 150 females (sex data were missing on nine persons). The age of the sample ranged from 14 to 85 with an average age of 35.6. An index of socioeconomic status was obtained using Hollingshead's (1957) seven point occupational scale. The distribution of occupational categories for the head of household included the following: professional, 6.9%; managerial-proprietor, 16.7%; administrative; 19.5%; clerical, 23.0% skilled manual, 23.0%; semi-skilled manual, 10.3%; and unskilled manual, 0.6%. Sample 2, the cultural reference group, consisted of a total of 201 white Americans who reported the United States as their country of birth. Individuals in this sample were intended to be representative of the cultural group toward which the Cuban community was acculturating. This sample ranged in age from 14 to 74 with an average age of 20.1 years. An index of socioeconomic status was obtained using Hollingshead's (1957) seven point occupational scale. The distribution of occupational categories for the head of household included: professional, 13.1%; managerial-proprietor,13.8%; administrative, 17.7%; clerical,

17.7%; skilled manual, 26.2%; semi-skilled manual, 10.0%; and unskilled manual, 1.5%. Sample 3 consisted of 69 Cuban American high school students drawn from two different schools roughly matched for socioeconomic status. This sample included 22 males and 47 females. Sample 4 consisted of 47 white American high school students drawn from the same two schools as in Sample 3. This sample included 18 males and 32 females.

The Development of the Acculturation Scales

Item construction

The first step in the development of the acculturation scales consisted of preparing an initial set of items consistent with the theoretical model. Specifically, the initial acculturation questionnaire developed consisted of two sections--a self reported behaviors section and a value section. The self-reported behaviors section contained a total of 33 items adapted from the set of items reported by Campisi (1947) and Carballo (1970). Research with other immigrant groups suggested that the items were useful in the measurement of acculturation. The items for the self-reported behaviors section were prepared in a five-point Likert format. This section of the initial acculturation questionnaire contained 10 items on language, 11 items on daily customs and habits, and 12 items on idealized life style.

The second section of the questionnaire consisted of 22 problem situations, prepared to be consistent with Kluckhohn and Strodtbeck's (1961) theory of value orientations. According to these writers there are five basic dimensions of human problems which must be solved by all cultures. These include: (1) relational style, (3) person-nature relationship, (3) beliefs about human nature, (4) a time orientation, and (5) an activity orientation. These writers also postulated three different variations along which each of the five basic dimensions of human problems can be solved. A given culture's choice of solutions to each of the basic dimen-

mensions of human problems constitutes its preferred value orientation.

In preparing the value items, an attempt was made to reflect the nature of the human problems defined by Kluckhohn and Strodtbeck while setting the problems in a context relevant to the target population. Each of the problem situations was followed by three statements presenting three possible alternative solutions to the problem. Since it had been clinically observed that the most serious acculturational/intergenerational differences for families in treatment occurred along the relational dimension, relational items were over-emphasized. The final set of 22 items consisted on nine relational, four human-nature, four person-nature, three time, and two activity items.

Item selection

Three criteria were used to select the items for the final acculturation scales:

1. A high loading on a factorially derived scale.

2. A significant item discrimination between Cubans (Sample 1) and the cultural reference group (Sample 2).

3. A significant item discrimination between high and low acculturated Cubans.

Factor analyses. Since the acculturation scales reported in this paper were developed to be used primarily with Cuban Americans, the item responses (both self reported behaviors and value items) obtained from Sample 1 were factor analyzed using an alpha solution and an oblique rotation (Harris-Kaiser, TYPE I). Four interpretable factors emerged from the analysis accounting for 28.7% of the total variance. The first and by far the largest factor, which accounted for 48.1% of the total factor variance, was a dimension of self reported behavioral acculturation. Thirty-two of

the 33 self-reported behavior items loaded (.30 or more) on this factor, whereas all of the value items loaded below .30 on this factor. The second factor, which accounted for 13.5% of the total factor variance, was a value factor. This factor was a combination of relational and person-nature value orientations with a high value on lineality and subjugation to nature (Kluckhohn & Strodtbeck, 1961). Seven of the eleven alternative solutions loading on this factor were either lineal or subjugation to nature. The third factor, which accounted for 13.4% of the total factor variance, contained a heterogeneous group of solutions to the human problems, the common core of which seemed to stress cooperation, harmony, and neutrality. The last interpretable factor accounted for 12.9% of the total factor variance. It was clearly a relational factor since 12 of the 13 solutions loading on this factor were relational items. All of the items loading positively on this factor reflected a belief in individuality while the items loading negatively reflected a belief in lineality as an interpersonal relationship style.

Significant discrimination between Cubans and cultural reference group. As an index of Cuban/cultural reference group discrimination, the responses of the Cuban sample were compared, item by item, with the responses of the cultural reference group. The significance of item discrimination was determined using a two tailed t-test for the item responses of the Cuban sample and cultural reference group.

Significant discrimination between high and low acculturated Cubans. As an index of acculturation discrimination, the responses of high acculturated Cubans were compared, item by item, with the response of low acculturated Cubans. The external criterion used for level of acculturation within the Cuban sample was the language in which transactions occurred in the various settings used for data collection. Thus, persons tested in settings in which transactions took place mainly in Spanish because of the persons' lack of pro-

ficiency in English were labeled "low-acculturated", while persons tested in settings in which transactions were primarily in English were labeled "high-acculturated". For example, students who were participating in special programs as a result of their inability to profit from regular classes conducted in English were classified as "low-acculturated". The significance of item discrimination was determined using a two tailed t-test for the item responses of the "high-acculturated" and "low-acculturated" Cubans.

Behavioral Acculturation Scale

The items for the behavioral acculturation scale were selected using the three criteria described in the item selection section. Two steps were involved in the selection of the final items. First, a secondary item pool was created from the initial item pool by selecting all of the items with a loading of .30 or greater on the first factor (the behavioral acculturation factor) and a t value with a significance level of .05 or less on the index of Cuban/cultural reference group discrimination, and a t value with a significance level of .05 or less on the index of acculturation discrimination. In addition, to facilitate both clinical and research use of the scale, a decision was made to reduce further the secondary item pool by selecting only the "best" items for the final behavioral acculturation scale, including nine idealized life style, eight language and seven customs items. The best items from each of the domains consisted of those items with the highest loadings on the first factor and the most significant within Cuban differences on the index of acculturation discrimination. Table 1 contains the final 24 items included in the behavioral acculturation scale.

Insert Table 1 About Here

The items on the behavioral acculturation scale consist primarily of self-

reported behaviors. The person is asked to report, on a five point scale the relative frequency with which he engages in each behavior. The anchors for the scales vary for each of the four clusters of items in this scale, but follow the same general format. The anchors for items 1 through 8 are: (1) Spanish all of the time, (2) Spanish most of the time, (3) Spanish and English equally, (4) English most of the time, and (5) English all of the time. The anchors for items 9 through 12 are: (1) Cuban all of the time, (2) Cuban most of the time, (3) Cuban at times and American other times, (4) American most of the time, (5) American all of the time. The anchors for items 13 through 15 are: (1) Completely Cuban, (2) Mostly Cuban, (3) Mixed: Sometimes Cuban and others American, (4) Mostly American, (5) Completely American. The anchors for items 16 through 24 are: (1) I would wish this to be completely Cuban, (2) I would wish this to be mostly Cuban, (3) I would wish this to be both Cuban and American, (4) I would wish this to be mostly American, (5) I would wish this to be completely American. The items are scored using unit weights and the person's total score consists of the simple sum of his response weights to each of the 24 items. Therefore, total scores on the behavioral acculturation scale can range from 24 to 120, with a total score of 24 indicating minimum acculturation. In the present study, total scores were prorated to correct for missing item responses. Up to five items were deleted without substantially affecting the psychometric properties of the scale.

Value acculturation scale

The items for the value acculturation scale were selected using the three criteria described in the item selection section. The results of these item analyses procedures for the three value factors were as follows: Value factor 1. Items with a loading of .30 or greater on the first value factor were compared using the index of Cuban/cultural reference group discrimination and the index of acculturation discrimination. Because of the small number of items that met all three criteria and the low loadings of those items meeting

these criteria, this factor was excluded from the final scales. Value factor 2. Items from the second value factor were also examined using all three criteria. Again, because of the small number of items meeting these criteria, this factor was also excluded from the final scales. Value factor 3. Items from the third value factor were examined as above. Ten of the items from this factor met all three criteria, i.e., a high loading on value factor 3 and a significant discrimination both between Cubans and the cultural reference group, and between low and high acculturated Cubans. Therefore, these ten items were selected for the final value acculturation scale. The six problem situations in which these items appear and the direction of their keying are presented in Table 2.

Insert Table 2 About Here

For each problem situation, the person is asked to choose the solution considered best and the solution considered worst. The weights for the keyed responses are as follows: a response of best for an item is given a weight of 3, a response of worst for an item is given a weight of 1, and if an item is not endorsed as either best or worst, it is given a weight of 2. Responses for each item can thus range from 1 to 3, with a score of three indicating that the person considered that solution the best, a score of two indicating that the person considered that solution neither best nor worst, and a score of 1 indicating that the person considered that solution the worst. The direction of keying was determined by the direction of the factor loading. Those items that loaded positively on the factor are keyed positively and those items that loaded negatively on the factor are keyed negatively.

Only those solutions for each problem situation that met all three criteria for Value factor 3 are scored for the value acculturation scale. The other solutions were retained for the final value acculturation scale in order to maintain

the integrity of the original items. The items are scored using the assigned weights (1, 2, or 3). The person's total score is computed by adding the assigned weights of the positively keyed terms and substracting the assigned weights from the negatively keyed terms. In the present study, the total scores were transformed into standard scores with a mean of fifty and a standard deviation of ten. Total scores were prorated to correct for missing item responses. Up to two items were deleted without affecting the psychometric properties of the scale.

Reliability

Internal consistency. An estimate of the internal consistency was calculated for both scales for samples 3 and 4 combined (total N= 115). The coefficient alpha for the behavioral acculturation scale was .97 and the coefficient alpha for the value acculturation scale was .77.

Parallel language forms. All of the items for both the behavioral and value scales, were translated into English. The technique of back translation (Brislin, 1970) was used to insure the equivalence of the items in both languages. Further, an estimate of parallel form reliability was obtained by simultaneously administering the scales in both English and Spanish. For the behavioral scale, the correlation between Spanish and English forms was .88 (N= 27), $p<.00001$ whereas for the value scale, the correlation between the Spanish and English forms was .46 (N= 29), $p<.007$.

Test-retest. An estimate of retest reliability was obtained by administering both scales to 30 subjects on two occassions. The second administration took place approximately four weeks after the first. The test-retest correlation for the behavioral acculturation scale was .96, $p<.00001$, and for the value acculturation scale was .86, $p<.00001$.

Validation of the model and the scales

This section presents evidence for the construct validity of both the theoretical model of acculturation and the acculturation scales. Construct validity concerns the relationships between a theory and the measures for operationalizing the constructs embedded within that theory. The logic of construct validation requires the simultaneous validation of a theory and the means for operationalizing its constructs (Cronbach and Meehl, 1966). Construct validation is a systematic process involving "the gradual accumulation of information from a variety of sources (Anastasi, 1968, p. 155)" concerning a theoretical construct and the theoretical framework from which it is derived. Three studies pertaining to the construct validity of both the model and the scales are reported below. While not conclusive, these studies provide evidence for the validity of the model and the results suggest that the acculturation scales are useful, operational measures of the construct of acculturation as presented above.

Study 1

Criterion related validity is one source of construct validational evidence. Criterion related validity concerns the relationship between a measure and some external, non-test variable. A basic hypothesis of the theoretical model is that individual acculturation is a linear process that progresses as a function of the length of time the person has been exposed to the host culture. Consequently, the model predicts that individual differences in measured acculturation covary with the number of years of exposure to the host culture. To the extent that the acculturation scale measures that construct, the longer an individual has been exposed to the language, customs, habits, norms, and values of a cultural reference group, the higher the person's acculturation scores will be. It is therefore pos-

sible to estimate directly the validity of the acculturation scales by examining the relationship that exists between scores on the scales and the length of time an individual has been exposed to a cultural reference group, providing criterion related validity for the first hypothesis.

For this study, the behavioral and value acculturation scales, along with a biographical information sheet were administered to a group of Miami high school students drawn from two different high schools. The use of a high school sample, a population which in its natural setting is relatively homogeneous in terms of age, serves to control for age as an influence on the acculturation process. The samples used in this study are described above under the subject section as Samples 3 and 4.

Two separate sets of analyses were conducted to determine the relationship between scores on the acculturation scales and the criterion variable, number of years in the United States: (1) scores on the acculturation scales were correlated with the years in U.S. for the total sample (Samples 3 & 4); (2) scores on the acculturation scales were correlated with the years in U.S. for the Cuban American sample (Sample 3). Since one of the criteria used to select members of the cultural reference group was reported birth in the U.S., and since these individuals were expected to exhibit maximum Americanization, they were assigned the maximum value of 18 for the criterion variable for purposes of analyses (cf. Figures 1 & 2).

The results of the first set of analyses are as follows. For the total sample used in this study, scores on the behavioral acculturation scales correlated .82 ($p<.00001$) with years in U.S., and scores on the value acculturation scale correlated .55, ($p<.00001$) with years in U.S. Figure 1 presents a bivariate plot of the distribution of scores on the behavioral acculturation scale and the years in U.S., while Figure 2 presents a bivariate plot of the distribution of scores on the value acculturation scale and years in U.S.

Insert Figures 1 & 2 About Here

There are several important points to note about the results of these analyses. First, the correlation between the behavioral acculturation scale and the number of years in the U.S. strongly suggests that the gradual acceptance of a host culture's language, customs, and idealized life style is an almost perfect linear function of the length of exposure to that culture. Total scores on the behavioral acculturation scales, it will be recalled, are a composite of these three dimensions of acculturation. The fact that it is possible to account for 66% of the variation in the composite index with years in U.S. strongly suggests that the process of behavioral acculturation is uniform for all of these dimensions. Second, an examination of the bivariate plot clearly reveals that the direction of acculturation is toward the cultural reference group. As can be seen from Figure 1, all of the cultural reference group members scored above the mean on the behavioral acculturation scale while scores of the Cuban American sample ranged from a low of 26 to a high of 102. Third, the correlation between the value acculturation scale and the number of years in the U.S. suggests that the process of value acculturation is also linearly related to exposure to the host culture. The final value scale is intended to represent Kluckhohn & Strodtbeck's (1961) relational value. According to these authors, a value of lineality indicates a preference for hierarchical relations and a value on individuality indicates a preference for autonomous relations. As expected from clinical observation, relational values change from lineality to individuality as acculturation proceeds. Finally, an examination of both bivariate plots suggests that for the cultural reference group, cultural differences in value orientation are not as homogeneous as cultural differences in language, customs, and idealized life style. As can be seen from Figure 2, the distribution of scores on the relational dimension exhibit considerably more variability than the distribution of scores on the be-

havioral scale. These findings are consistent with Gerth and Mills (1953) observation that cultures in which there is a loose unity of social structure, such as in America, are more likely to result in a wider variation of values than cultures with a tighter social structure, such as the Cuban culture.

The second set of analyses consisted of three major steps. First, the previous set of analyses were repeated using only the Cuban American sample. Second, the same analyses were performed separately within the Cuban American samples, for both males (N= 22) and females (N= 47). Third, the behavioral and value acculturation scales were correlated for the total Cuban American sample.

The results of the second set of analyses are as follows. For the total Cuban American sample the correlation between the criterion variable and the behavioral acculturation scale was .61 ($p<.00001$) and the correlation between years in U.S. and scores on the value acculturation scale was .35 ($p<.002$). Scores for both scales were also correlated with years in U.S. separately for males and females. The correlation between the criterion variable and behavioral acculturation scale scores for males (N= 22) was .49 ($p<.0001$) and for females (N= 47) was .59 ($p<.00001$). The correlation between the criterion variable and value acculturation scale scores for males was .31 ($p<.005$) and for females was .38 ($p<.005$). Finally, the correlation between the behavioral and value acculturation scales for the total sample (N= 115) was .57 ($p<.0001$).

There are three important points to note about the results of the second set of analyses. First, for this acculturating Cuban group, behavioral acculturation appears to be a linear function of the amount of time an individual has been exposed to the host culture. Second, behavioral acculturation appears to be linearly related to exposure to the host culture for both males and females. Third, the results further suggest that the process of value acculturation is not as linear as the process of behavioral acculturation. Finally, the high correlation between scores on the behavioral and value acculturation scales suggests

that behavioral and value acculturation are parallel processes. Over time, the process of value and behavioral acculturation occur more or less simultaneously within the migrant community.

Study 2

Group differences are a second source of construct validational evidence. "If our understanding of a construct leads us to expect two groups to differ on the test, the expectation may be tested directly (Cronbach & Meehl, 1966, p. 76)." The second basic hypothesis of the acculturation model is that the rate of acculturation is a function of the person's age, with young people acculturating more rapidly than older individuals. Thus, the model predicts the emergence of intergenerational differences in measured acculturation as the process of acculturation proceeds.

To test this expectation, both Cuban American groups (Sample 1 & 3) were combined into one large sample (N= 334) and according to psychosocial stages (Newman & Newman, 1975). This classification yielded five psychosocial stages with the following age ranges: Early adolescence(13-17), later adolescence(18-22), early adulthood (23-30), middle adulthood (31-50), and later adulthood (51 +). Eleven subjects were missing age data. Table 3 presents the means, standard deviations, and F ratios for both acculturation scales scores and the number of years in the U.S. by psychosocial stage. Since the previous study demonstrated that individual differences in measured acculturation are highly related to years in the U.S., an analysis was conducted to determine the equivalency of the groups along this dimension. As can be seen from Table 3, differences in the average number of years in the U.S. across psychosocial stages are nonsignificant, F (4,319) = .55, p .67. There are two additional points to note about the results of the analysis. First, an examination of Table 3 also indicates that intergenerational differences in measured behavioral acculturation are highly significant, F (4,319) = 47.01, $p<.0001$ and in the direction predicted by the model. The highest mean score

was obtained by the early adolescents followed, in descending order, by each of the psychosocial stages. Second, the results presented in Table 3 indicate that the process of value acculturation is more complex than that of behavioral acculturation. Apparently value acculturation scale scores are more related to psychosocial stage than age per se. Within the Cuban-American sample, the highest endorsement of individuality was obtained by individuals at the stage of early adulthood. While the meaning of this finding is not clear, the results seem to support, overall, the implications of developmental psychosocial theory. According to psychosocial theory, the major developmental tasks of this period include establishing a marriage, starting a family, developing a career, and establishing a life style-- all of which suggest that individuals at this stage should exhibit an individualistic orientation (Newman & Newman, 1975). The problem with using the relational value in an acculturation scale derives from the lack of homogeneity in values within the host culture used in this study (Gerth & Mills, 1953).

Insert Table 3 About Here

Study 3

Another type of group difference relevant for the validation of both the theoretical model and the scales is sex differences. The third hypothesis of the model is that the rate of acculturation differs for males and females with the former acculturating more rapidly than the latter. Specifically, males are expected to have higher acculturation scores than females as the acculturation process proceeds. This expectation may be tested directly. To test the hypothesis concerning sex differences in measured acculturation, the total Cuban American sample (Samples 1 & 3) was broken down into a male (N= 127) and a female (N= 198) sample. Table 4 presents the means, and standard deviations for the be-

havioral and value acculturation scales by sex. Since the previous studies have demonstrated that individual differences in measured acculturation are related to both years in U.S. and age, two analyses were conducted to determine the equivalency of these groups along these dimensions. For this purpose, the sample was further broken down by number of years in U.S. and age. The average number of years in the U.S. for the male and female samples, respectively, were 9.1 (SD= 5.1) and 8.5 (SD= 4.6). The t test for these differences was nonsignificant, t (313) = 1.10, $p<.27$. The average age for the male and female sample, respectively, were 27.1 (SD= 15.3) and 31.0 (SD= 18.4), and this difference achieved significance, t (321) = 1.97, $p<.05$.

Insert Table 4 About Here

In order to control for the effect of age on the acculturation scores of males and females, analyses of covariance were conducted on the effect of sex on behavioral and value acculturation, when the effects of age were partialed out. Holding age constant, the difference in mean scores for the behavioral scale is significant, and in the predicted direction, F (2,320) = 3.71, $p<.05$. These findings indicate that males acculturate along the behavioral dimension more rapidly than females, and further that this difference is independent of age and length of exposure to the host culture. Holding age constant, the difference in mean scores for value acculturation fails to reach significance, F (2,320) = 2.46, $p<$ .11, suggesting that males and females do not differ significantly in their rates of acculturation along a relational value dimension.

Discussion

This paper outlines a psychosocial model of acculturation intended to account for the occurrence of intergenerational/acculturational differences and its concomitant family disruption. According to this theoretical model, individual ac-

culturation is a linear function of the amount of time a person has been exposed to the host culture and the rate at which the acculturation process takes place is a function of the age and sex of the individual. Further, two aspects of the process of acculturation itself can be differentiated: the process as it takes place along an overt behavioral dimension of functioning, and the process as it takes place with respect to internalized value orientations.

In order to investigate the characteristics of the model of acculturation, two factorially derived acculturation scales were constructed. Although both scales were psychometrically sound, the behavioral scale proved superior to the value scale. With respect to its psychometric qualities, the behavioral scale exhibited a high degree of internal consistency (r_{xx} = .97), retest reliability (r_{xx} = .96), and parallel language forms reliability (r_{xx} = .88). A pilot analogue study of progressive deletion analyses suggested that up to five items can be deleted without seriously affecting these psychometric properties. With respect to its construct validity, behavioral scale scores are highly correlated with the criterion variable (years in U.S.) for acculturation (r = .82, $p < .00001$), and predict group differences as hypothesized by the model (age: F (4,319) = 47.01, $p < .0001$; sex: t (1,324) = 3.95, $p < .006$). In addition, the scale is short, easy to understand, quick to administer (administration time is five to ten minutes), and can be used with populations from a wide range of socioeconomic and educational levels. A simple scoring procedure facilitates its use in research as well as clinical settings. Finally, the apparent generalizability of the behaviors tapped by the items suggest that the scale can be modified to make it applicable for use with other immigrant groups. This modification can be achieved by deleting not more than five culturally inappropriate items and changing the anchors of the remaining items to correspond to the respective host and immigrant cultures. Used by itself the behavioral scale is the best available measure of acculturation.

Three studies were conducted to provide validational evidence for the model. Study 1 examined the relationship between lenght of exposure to the host

culture and acculturation. As predicted by the model, measured acculturation was found to be a linear function of the amount of time a person had been exposed to the host culture. Study 2 examined the relationship between age and the rate of acculturation. Again, consistent with the model, the rate of behavioral acculturation was an inverse linear function of age. The rate of relational value acculturation, however, appeared to be more strongly related to psychosocial stage, rather than age per se. Study 3 investigated the relationship between the rate of acculturation and sex. As predicted, males tended to acculturate more quickly than females along the behavioral dimension. The rate of value acculturation, however, did not differ for males and females. The results of these studies thus provide strong support for the validity of the major features of the model, along a behavioral dimension of acculturation.

Acculturation as conceptualized by the model sheds light on the essence of the process which leads to the development of the clinically observed intergenerational/acculturational differences in immigrant families. Specifically intergenerational/acculturational differences develop over time because younger members of the family acculturate more rapidly than older family members. Figure 3 illustrates graphically the process of the development of these intrafamily differences as described by the model.

Insert Figure 3 About Here

Historically, immigrant groups in the United States have been characterized by high levels of behavioral disorders and family disruption. It has been frequently suggested that these disorders occur as a consequence of certain aspects of the acculturation process. Based on the acculturation model described in this paper, it is proposed that the essential aspect of the acculturation process that leads to family disruption is the development of intergenerational/acculturational dif-

ferences. Thus, the model conceptualizes the etiology of family disruption among immigrant groups in terms of the nature of the acculturation process. Specifically, it is the intergenerational differences in rates of acculturation that lead to the development of the clinically observed intrafamily disruption. Further, the model predicts that the most severe intrafamily differences in acculturation occur between young males and their mothers, suggesting that the most severe intrafamily conflicts are expected between these family members. Consistent with this prediction, preliminary data obtained as part of the ongoing research project indicates that the population in treatment consists primarily of young males ($\bar{X}_{age}$= 24.3) and middle aged females ($\bar{X}_{age}$=34.1). What the findings do not yet explain is why some families become disrupted while others do not. Further studies are already underway to test the hypothesis that in disrupted families the effects of the acculturation process becomes exaggerated with acculturation accelerating in youngsters and decelerating in parents. Consistent with this hypothesis, preliminay findings from a field study with Cuban mothers indicate that mothers who report family problems tend to obtain lower acculturation scores than mothers who do not report problems. Moreover, these differences in acculturation scores become more pronounced when years in U.S. is held constant, thus, providing some support for the hypothesis that family disruption occurs when the process of acculturation becomes decelerated in parents. These preliminary clinical findings are very tentative and must be interpreted cautiously since other interpretations of these data are also possible. Nevertheless, the psychosocial model of acculturation presented in this paper seems to be of heuristic value in understanding the etiology of widespread family disruption in immigrant populations.

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Footnotes

[1]A computer program for use with the Statistical Package for the Social Sciences is available from the senior author to score both the behavioral and value acculturation scales.

TABLE 1

Behavioral Scale Items and Factor Loadings

Items	Loading
1. Which language do you prefer to speak?	+.66
2. What language do you speak at home?	+.49
3. What language do you speak in school?	+.67
4. What language do you speak at work?	+.52
5. What language do you speak with friends?	+.74
6. In what language are the T.V. programs you watch?	+.71
7. In what language are the radio stations you listen to?	+.76
8. In what language are the books and magazines you read?	+.68
9. What sort of music do you listen to?	+.77
10. What sort of dances do you dance?	+.68
11. What sort of places do you go out to?	+.75
12. What sort of recreation do you engage in?	+.74
13. My way of celebrating birthdays is:	+.64
14. My way of relating to my fiancee is:	+.60
15. The gestures I use in talking are:	+.72

Table 1. - (Contd.)

Items	Loading
Instructions: Sometimes life is not as we really want it. If you could have your way, how would you like the following aspects of your life to be like?	
16. Food:	+.64
17. Language:	+.72
18. Music:	+.82
19. T.V. programs:	+.79
20. Books/Magazines:	+.80
21. Dances:	+.76
22. Radio programs:	+.84
23. Way of celebrating birthdays:	+.75
24. Way of celebrating weddings:	+.72

TABLE 2

Relational Value Scale : Problems, Solutions, and Factor Loadings

Factor Loading	Items
	1. What should a family do if it discover that one of its members uses drugs?
___ ___	a. The head of the family should take charge of the situation. If this does not resolve the problem then it's best for the drug user to go to a doctor or psychiatrist.
___ ___	b. The members of the family should discuss the reason drugs are used and in this way arrive together at a solution.
+.47	c. The family should consider that the use of drugs is a personal issue, and that each individual should lead an independent life without the interference of others.
	2. Three mothers talk about what they would do if they found out that their daughters were having sexual relations with their boyfriends.
-.51	a. The first one said: I would forbid her to continue that relationship since it is against the principles her father and I have taught her.
+.55	b. The second one said: I think she has a right to act freely without her parent's interference.
___ ___	c. The third one said: I would speak with my daughter as if she were a friend. We would try discussing it to see if it is a mature and responsible relationship and together we would

Table 2 (Contd.)

Factor Loading	Items
	reach an agreement as to what is best for her.
	3. Three young women were talking about how they would feel if their families knew that they were maintaining sexual relations with their boyfriends.
___ ___	a. The first one would see herself as belonging to a group of people who find no reason to restrict sexual relations to marriage.
-.54	b. The second one would feel guilty for having acted against the principles that her parents have taught her.
+.37	c. The third would consider that she has a right to live as she pleases without having to account for her behavior to anyone.
	4. <u>In reference to women</u>... three different points of view follow:
___ ___	a. Man and woman should be partners. She should work if she wants to, and at the same time share the duties of the household with her husband.
-.37	b. A woman should be a man's complement. Thus, while he goes out to work, she should take care of the housework and the children.
+.52	c. Women should try to achieve their own goals, without allowing their husbands or traditional ideas to limit them.

Table 2 (Contd.)

Factor Loading	Items
	5. Three different opinions are given as to how decisions should be reached in a family:
___ ___	a. Each member of the family should give his/her opinion and among all reach an agreement.
+.43	b. Each member of the family should make his own decision without consulting other members of the family.
-.36	c. The father should make the decision for the whole family.
	6. Three people were talking about abortion.
___ ___	a. The first one said: Human beings should submit to natural occurring phenomena, such as pregnancy, rather than interfaring with nature be means of an abortion.
___ ___	b. The second one said: One has to live in harmony with nature. Natural methods should be used to prevent pregnancy so that the harmony between man and nature is not altered as it is with abortion.
+.47	c. The third one said: Human beings are entitled to control their lives and abortion is one method of doing this.

TABLE 3

Means, Standard Deviations and F Ratios for the Acculturation Scales, and for Years in U.S. by Psychosocial Stage

		Behavioral Acculturation		Value Acculturation		Years in U.S.	
	N	X	SD	X	SD	X	SD
Early Adolescence (13-17)	90	68.0	16.9	49.1	7.5	9.2	4.7
Later Adolescence (18-22)	91	66.2	19.8	52.2	10.7	8.4	4.7
Early Adulthood (23-30)	32	63.2	13.7	56.5	12.1	8.7	4.1
Middle Adulthood (31-50)	67	54.9	16.3	48.7	8.3	9.1	4.9
Later Adulthood (50+)	43	27.7	16.2	42.99	8.9	8.1	5.5
F Ratio		47.10****		8.32**		0.547	

**$p < .01$

****$p < .0001$

TABLE 4

Means, and Standard Deviations for Acculturation Scale Scores by Sex

		Behavioral Acculturation		Value Acculturation	
	N	X	SD	X	SD
MALE	127	63.0	21.6	51.4	11.0
FEMALE	198	56.2	21.3	49.2	9.1

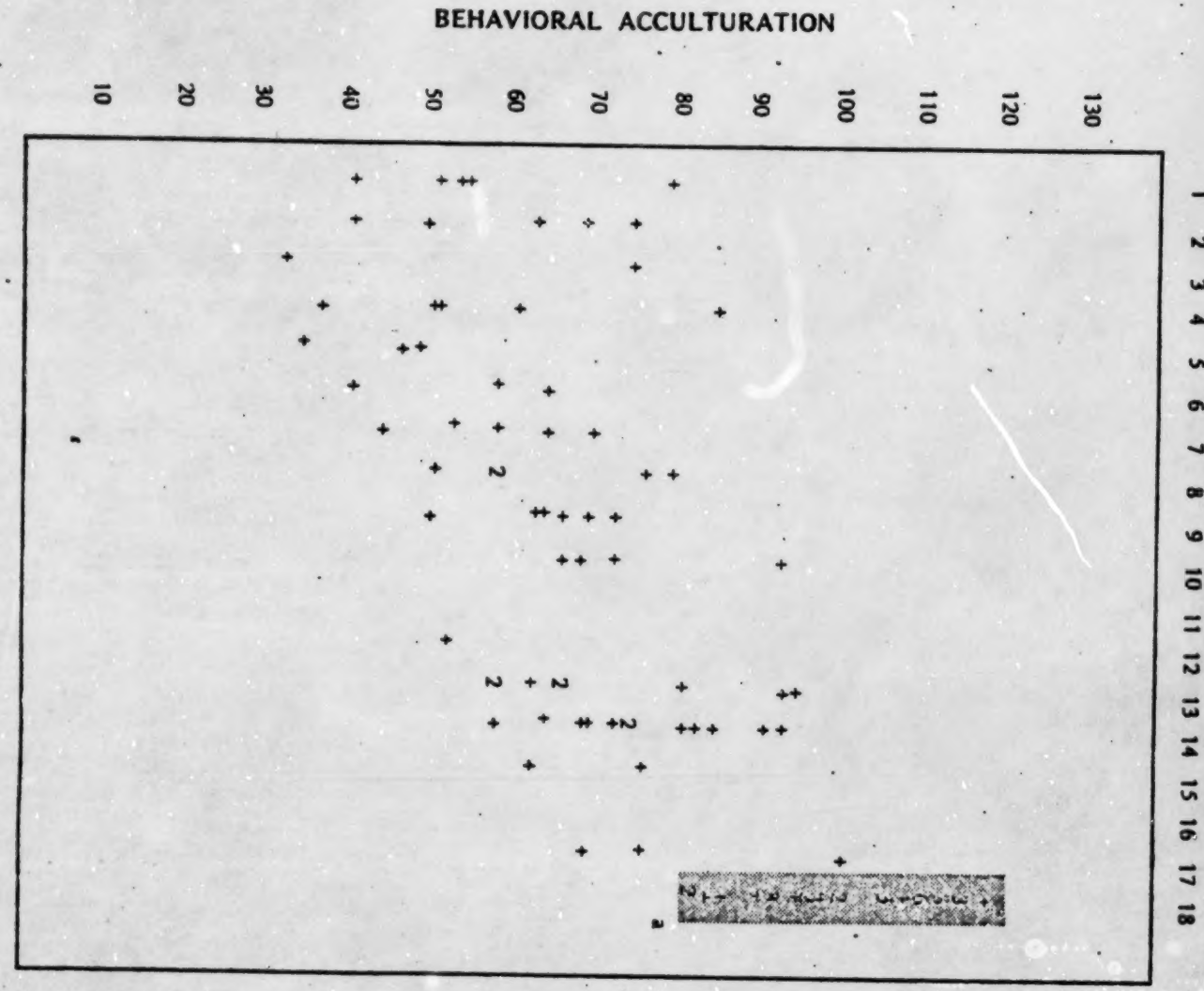
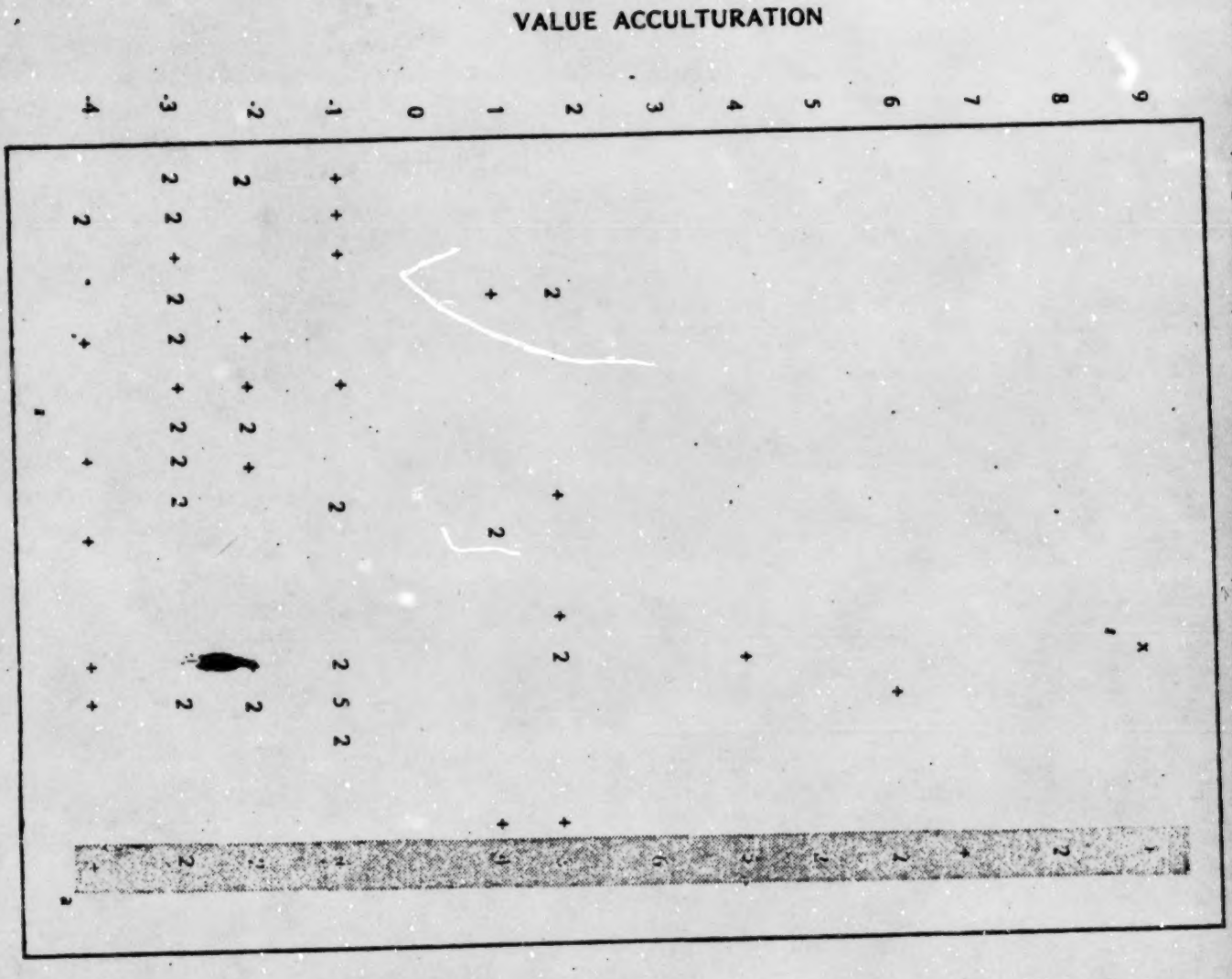


FIGURE 1. Self-reported behavior acculturation scores as a function of the number of years of exposure to the host culture.



a) SHADED AREA = CULTURAL REFERENCE GROUP

FIGURE 2. Relational value acculturation scores as a function of the number of years of exposure to the host culture.

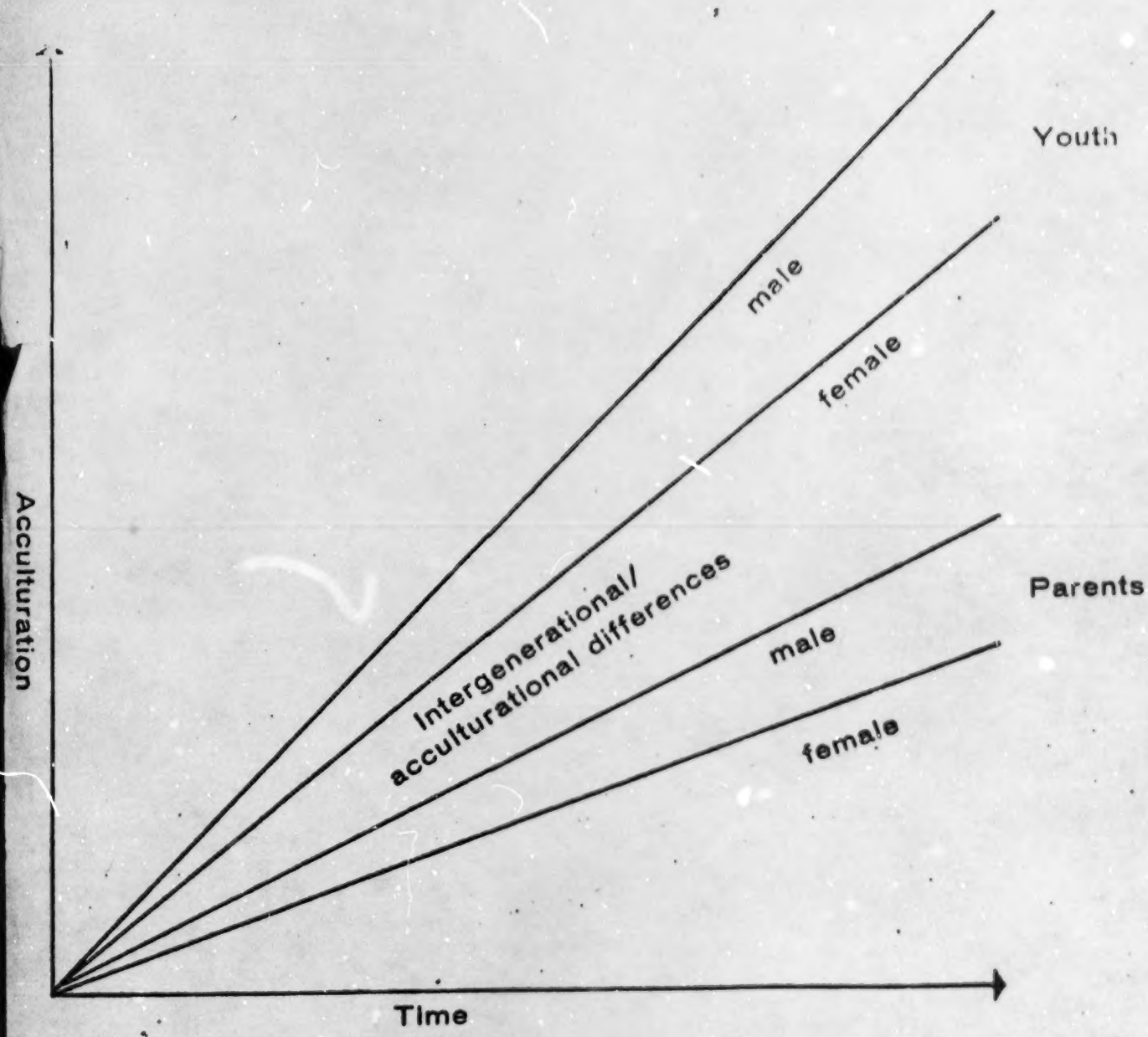


FIGURE 3. The development of intergenerational/acculturational differences as a function of time.